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ABSTRACT

The purpose of this paper is to report how Gagne's model in "The Conditions of Learning" was adapted in order to develop activities, preobjectives, and test items for social studies concept instruction. One of the major problems in the field of social studies education is the looseness or nonspecificity of many of the definitions and terms which play such an important role in the planning, organization, and assessment of instruction. This looseness of definitions may contribute to a discrepancy between what teachers would like to teach and what they, in fact, teach. One way to improve instruction and increase student learning in the social studies is to develop precise definitions for the concepts used while simultaneously assisting teachers in the use of logical modes of instructional behavior. (Author)

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A MODEL TO DEVELOP STUDENT CONCEPT LEARNING AND PROBLEM SOLVING SKILLS: MODIFYING GAGNE FOR PLANNING, INSTRUCTION, AND ASSESSMENT IN THE SOCIAL STUDIES[1]

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[1]This paper has been revised slightly to include figures, diagrams, and tables used as overheads in the original presentation but not included in the original paper itself. Few changes have been made in the actual text.

A Model to Develop Student Concept Learning and Problem-Solving Skills: Modifying Gagne for Planning, Instruction, and Assessment in the Social Studies[1,2]

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One of the major problems in the field of social studies education is the looseness or non-specificity of many of the definitions and terms which play such an important role in the planning, organization, and assessment of instruction. This looseness of definitions may contribute to a discrepancy between what teachers would like to teach and what they do, in fact, teach. For example, the classroom teacher interested in having students learn the meaning of and possible uses for the concept "revolution" must operate from a clearly articulated definition of revolution. Clear statements of definition or relevant attributes of concept labels make planning and teaching in the social studies more efficient and effective. Lacking specific definition, many social studies concepts currently being taught or studied run the risk of being misunderstood or misused. Even worse, such results make the teaching of concepts to students almost meaningless. One way to improve instruction and increase student learning in the social

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[1]The authors are indebted to J. Doyle Casteel and John W. Gregory, Department of Secondary Education, University of Florida, for their major contributions in the conceptualization and prototype development stages of the project. Their comments and suggestions relevant to this paper also are appreciated.

[2]The authors also express their appreciation to Dr. Pat Spears, Social Studies Consultant, Florida Department of Education, for her permission to use parts of the project materials for purposes of writing this paper.

studies is to develop precise definitions for the concepts used while simultaneously assisting teachers in the use of logical modes of instructional behavior.

The purpose of this paper is to report how Gagne's model in The Conditions of Learning (1970) was adapted in order to develop activities, pre-objectives, and test items for social studies concept instruction. The modified model and related materials to be discussed herein were part of a Florida Department of Education State-Wide Assessment Project at the University of Florida, College of Education. The final products of the project include eight prototypes which presented a model of planning, sequencing, and assessing instruction.

After studying Gagne's model and the literature relevant to concept learning in the social studies, it was decided that rather than bend the social studies to fit Gagne, Gagne's model should be modified to fit the social studies. As a result, modifications in Gagne's model were made at the rule learning and problem solving levels to make it consistent with social studies and social science concepts and data. In order to be successful within the framework of the modified Gagne model, precise definitions of each of the concepts and the development of a "concept cluster" were needed.

Concepts were viewed as abstractions by which men sort out and arrange different aspects of human experience. The names of concepts are labels attached to specific and unique activities, behaviors or phenomena in the environment for the purpose of assisting an individual to understand and find meaning in his experience. Prototype materials were developed using concepts defined in terms of the situational or continual conditions necessary for their definition and application. The definitions clearly stipulate the condition(s) that must exist in order for the concept label to be applied as being accurate. Either the

condition exists or it does not. If the specific condition is met, then it can be described by the concept label consistent with the condition. For example, the concept of conflict was defined abstractly as: If and only if there are two or more mutually incompatable entities (within a system), then there is conflict. In this way, each concept was defined abstractly in terms of "if, . . . then . . ." conditional statements, i.e., "If and only if these conditions are met, then Concept A exists." (See Figure 1).

To write the definitions in terms of conditional statements, each of the concepts selected were studied empirically. Each concept was examined in terms of how it is used by scholars in the various social science disciplines. For example, the concept conflict required an investigation into the fields of history, economics, political science, psychology, sociology, social psychology, and philosophy. With the definitions acquired from the scholars of these disciplines serving as the basis of synthesis, each concept was then defined abstractly in terms of a condition or set of conditions which were unique to itself and consistent with the social science discipline. The resulting conditionally stated definitions were especially useful for social studies instruction because while building from the social sciences, they were not tied to any specific social science discipline. Consequently, the concepts, by definition, were "content-free. (The definition of conflict presented earlier is illustrative of what is meant by a content-free social studies concept.)

After arriving at an abstract definition, each concept was further analyzed and defined along two additional dimensions. In the second or conditional definition dimension, each concept was examined from the perspective of the social scientist in terms of the kinds of specific conditions

DEFINING STRATEGY

I. Abstract Definition	If and only if _____
II. Conditional Definition	Social Scientists use this concept in the following situations:
III. Utilitarian Definition	Social Scientists use this concept in order to interpret and explain the following types of phenomena:

Figure 1: A model of the three dimensions of the defining strategy for each concept.

he would expect to be present for the concept label to be used. For example, conflict is likely to be present if groups have moved toward extreme ideological positions. The third or utilitarian definition dimension provided examples of situations that social scientists are most likely to explain in terms of concepts within their discipline. One situation where the social scientist would likely use the concept conflict in order to categorize and explain data is when groups struggle over values, such as the confrontation of police and protestors during the 1968 Democratic Convention in Chicago. Besides providing increased understanding of the abstract definition, these additional dimensions further serve to provide clarity to those looking for more content centered definitions.

In analyzing the field of social studies, it was realized that in most instances, certain conditions or phenomenon tended to occur in close proximity to each other. They appeared to be related indirectly and semi-dependently of one another. In most instances, one did not find a concept (or a condition consistent with a concept) appearing in isolation. In fact, data from the field suggested that when one finds one concept (set of conditions), he usually finds others. For example, when one finds an example of conflict, he usually finds instances of violence or competition or norms, etc. This suggested that rather than approach social studies concept-based instruction in terms of a number of randomly selected concepts, a concept cluster be identified and used. (See Figure 2). The concept cluster selected centered around the concept conflict and included seven additional concepts. These seven concepts were: competition, violence, polarization, social solidarity, relative deprivation, norm, and role. (See Figure 3). By adopting the cluster approach, the project staff in effect recognized two important aspects of social

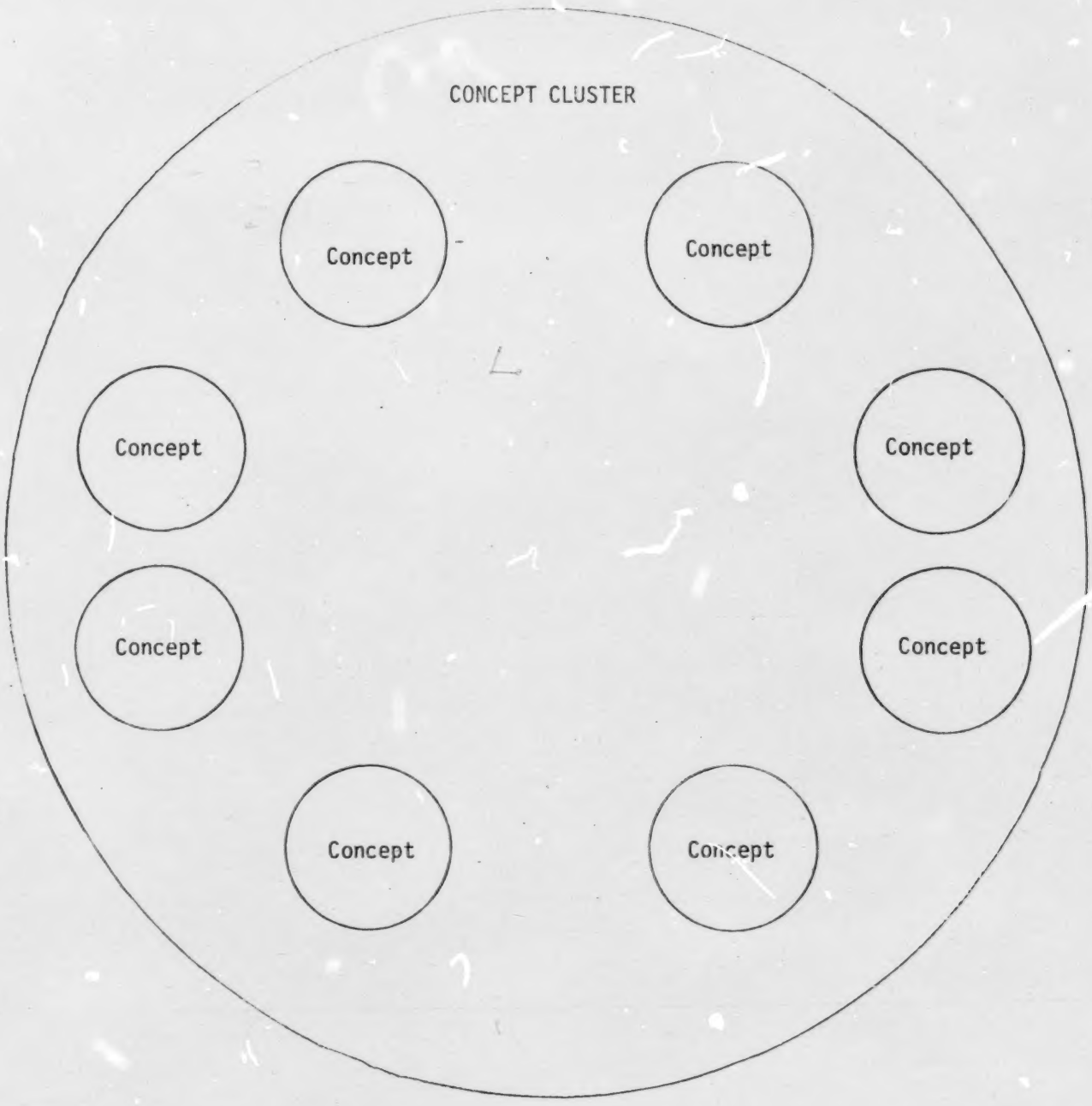

Figure 2: A diagram of the concept cluster phenomenon suggested by the social studies.

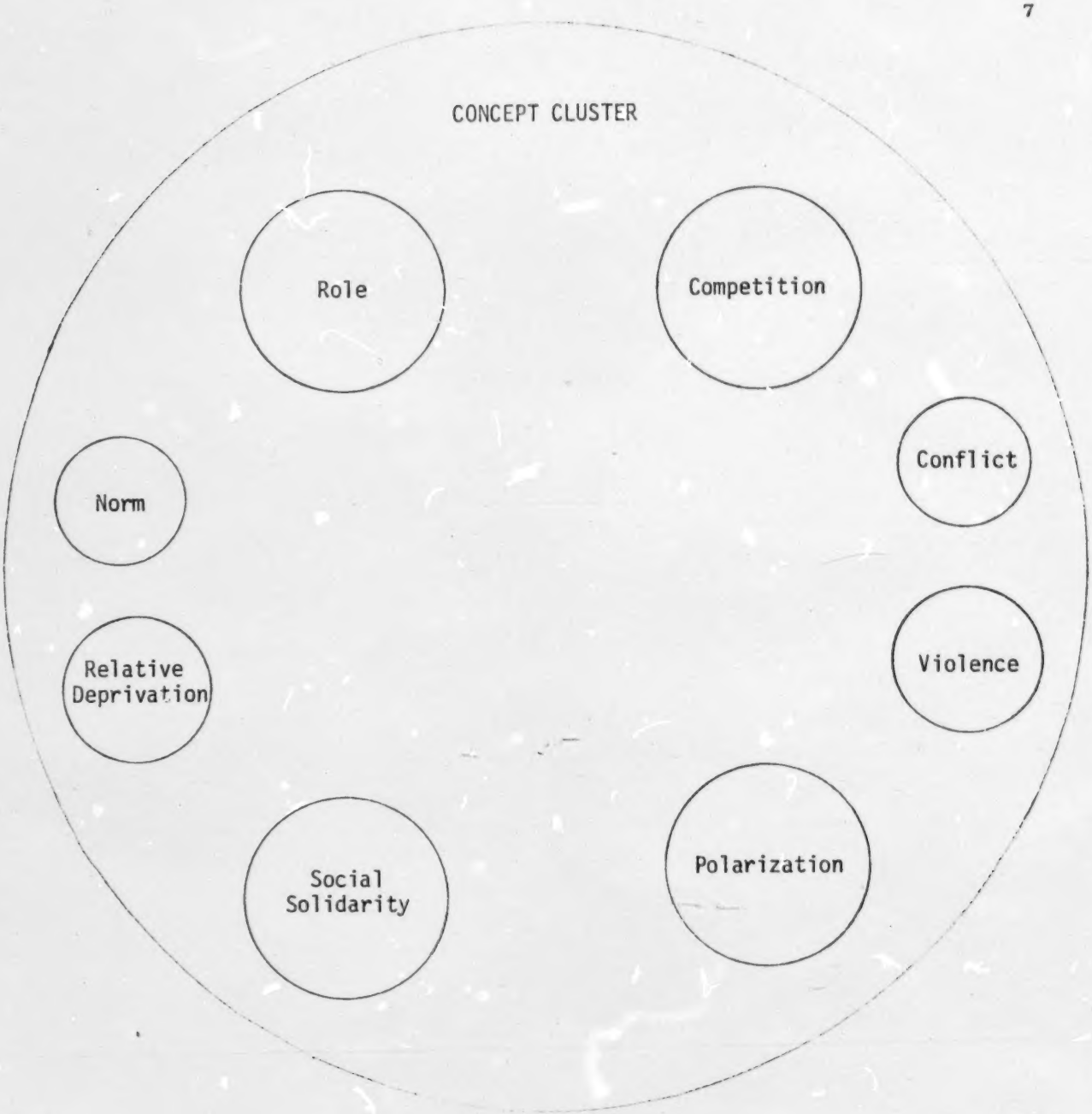

Figure 3: A diagram depicting the eight concepts within the conflict concept cluster.

studies data. First where one of the concepts was present within the data, one tended to find at least one of the other seven concepts also present. Second, the concept cluster approach more accurately describes the organization and structure of the social studies than any single discipline of the social sciences may define it. Furthermore, the social science disciplines seemed to lend support for the cluster approach as opposed to the isolated concept or a hierarchial concept-subconcept approach. (See Figure 4).

The adoption of the concept cluster approach fit the modifications made in the Gagne model at the rule learning level. In Gagne's language, by chaining two concepts, one forms a rule. These rules, when they are developed, are based on logical and empirical grounds. Defined by the project and with regard to the social studies, a rule is a proposition that is sufficiently probable to warrant verification in particular cases. For example, the rule, "If conflict, then violence is likely," not only chains the concept conflict to the concept violence, but it also states a proposition that has a high probability of being valid. Given a set of data to be interpreted, social studies rules, especially when using concepts within a given concept cluster, suggest a relationship that has a high probability of occurrance and as such are worthy of consideration. They can be checked empirically against the data presented in the situation and they can be tested logically by inferring what is probably true but not provided specifically in a situation as given. In addition, social studies rules take the form of "if, . . ., then . . ." conditional statements. This form allows one to see more clearly the relationship between two concepts such that if one concept (of the cluster) exists, then one of the other concepts is also very likely to be found.

At the problem solving level, the Gagne model was modified to allow for

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CONCEPT HIERARCHY

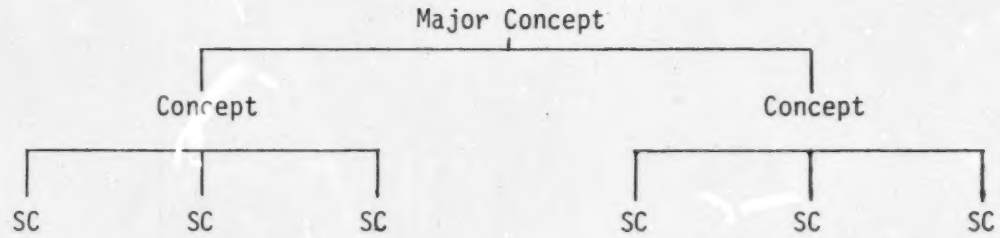

Figure 4: A diagram suggested by a hierarchial approach to the social studies.

a number of plausible solutions to fit the problematic situation. Since social phenomenon and decision making frequently allow for several possible answers rather than just one within a given situation, learning of the problem solving level was not restricted to one correct answer or solution. The teacher could ask students to hypothesize reasonable causes of some event or behavior given in the data and to state the causes in the form of combining rules or stating a relationship between two rules. For example, a student might explain a problem situation with the statement, "If people are polarized, they may experience role conflict and cause violence to others." The teacher may also ask students to develop social policies by which the situation presented to him can be resolved. These are central examples of problem solving within the field of social studies instruction and are consistent with the modified Gagne model. According to the modified model, the types of problems students are to resolve as a result of instruction are predetermined by the teacher. However, the particular combination(s) of rules, explanation of relationship among rules, and the suggested policies for resolving the problem are more open to student thinking.

With certain adaptations, Gagne's model can be applied to the social studies. Although he incorporates eight levels in his model, problem-solving, rule learning, concept learning, discrimination learning, and verbal association are the five types of learning that possess the greatest potential for those who would teach conceptually based content and logical procedures of social inquiry. Consequently, it is these five levels that were the focus of learning activities developed in the prototype materials.

These five forms of learning can be arranged in a hierarchy and visualized as stair steps (Figure 5). According to this model, when one begins to plan instruction, he first identifies the kinds of problems students are to

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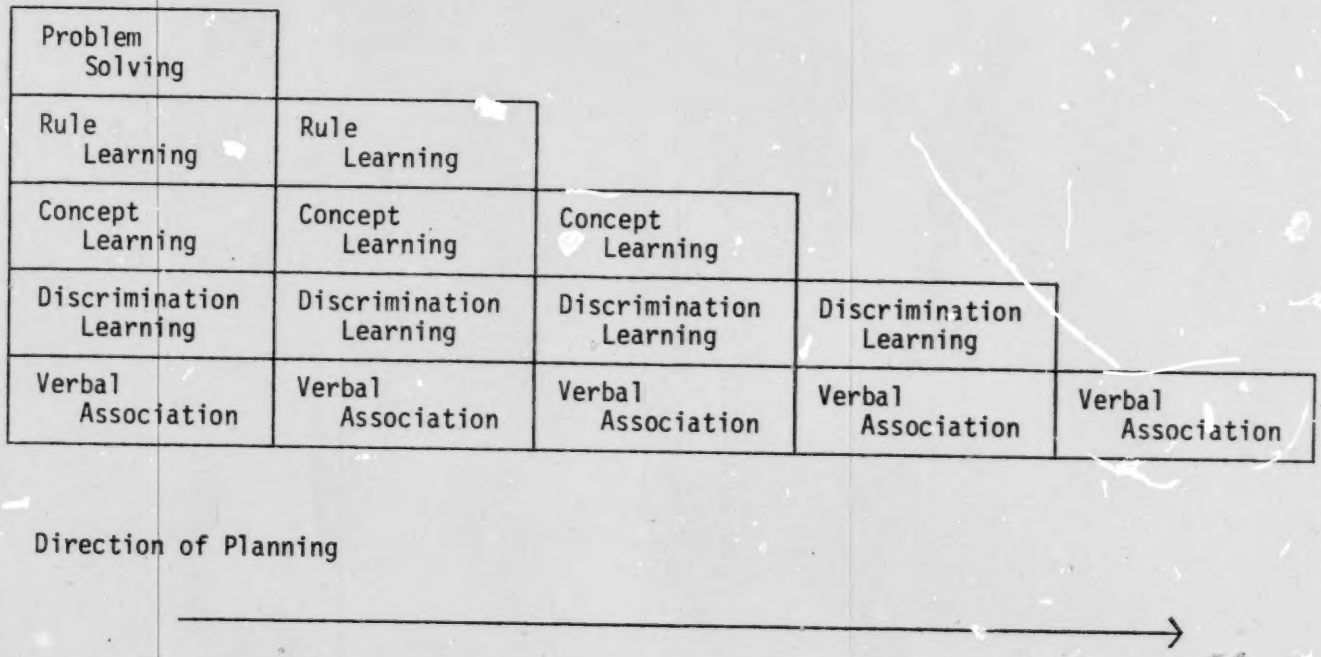

Figure 5: Gagne's model, as applied to planning instruction

resolve as a result of the instruction. Having identified the kinds of problems to be solved, one isolates the rules students are to combine in order to solve the problems. Knowing the rules, one analyzes the rules in order to determine the concepts that are to be diagnosed, for, and if linking, which are to be taught. Working knowledge and understanding at the conceptual level would require the ability to discriminate among phenomenon using defining attributes in order to select positive instances. Such discriminatory abilities are dependent on student learning of prerequisite verbal association.

The order of planning is to be contrasted with the sequence of instruction. In diagnosing and planning, the teacher moves from the complex (e.g., problem solving) to the more simple learning tasks (e.g., discrimination learning). In teaching, one moves from the simple (e.g., discrimination learning) to the more complex learning tasks (e.g., problem solving). A visual description of how Gagne's model is used in order to sequence instruction is presented in Figure 6. Activities for student learning consistent with the modified Gagne model were developed and incldded in the prototype materials. As such, these activities do provide models according to which teachers can plan and develop their own instructional materials.

In terms of assessment, when Gagne's model is used as a basis for planning and sequencing instruction, one first diagnoses in order to determine the skill level at which instruction should begin. This diagnosis occurs prior to the planning and development of learning activities or the initiation of instruction. Having developed and administered the diagnostic instrument, the test results provide the teacher with information for planning and initiating instruction. The prototype included pre-objectives and test items consistent with the modified Gagne model.

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				Problem Solving
			Rule Learning	Rule Learning
		Concept Learning	Concept Learning	Concept Learning
	Discrimination Learning	Discrimination Learning	Discrimination Learning	Discrimination Learning
Verbal Association	Verbal Association	Verbal Association	Verbal Association	Verbal Association

Direction of Sequencing and Implementing Instruction

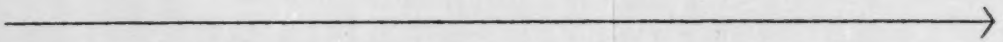

Figure 6: Gagne's model, as applied to sequencing and instruction

Three pre-objectives were written to define in measurable terms the observable behaviors to be exhibited by the student at the discrimination, concept, and rule learning levels. Thus, there were three pre-objectives for the discrimination learning level, three pre-objectives for the concept learning level, and three pre-objectives for the rule learning level. Pre-objectives were not written for the problem solving level as problem solving was viewed as being open ended in that a variety of solutions could accurately be proposed for a given problem.

Each pre-objective for the discrimination and concept levels corresponded to a dimension of the concept outlined in the concept's definition (i.e., defined in terms of the perspectives of the social scientists). The definition of concept conflict included four types of conflict: group conflict; role conflict; motivational conflict; and cognitive dissonance. Each pre-objective specified the type of conflict the student was to identify in the test item that followed. For example, in the first discrimination level pre-objective, the student was given the definition of conflict and four samples of human behavior from which he was to identify the example of group conflict. In similar fashion, the second discrimination level pre-objective focused on motivational conflict, and the third pre-objective focused on cognitive dissonance. The same pattern was followed at the concept learning level.

The rule learning pre-objectives required students to interpret a situation by selecting the statement which chained the concept conflict and one other concept appropriate to explaining the situation. In one rule learning pre-objective, conflict was chained to social solidarity to form the rule, "If there is conflict, then social solidarity is likely." The two remaining pre-objectives at the rule learning level chained conflict with violence and

polarization respectively to form if-then statements.

Three test items followed each pre-objective at each level. One test item was written for grades 5 and 6, one for grades 7 and 8, and one for grades 9 through 12. All the test items for each pre-objective were similar in format. They varied in the language, vocabulary, and sentence structure according to grade level. The discrimination level test item gave the student the definition of the concept in the directions and listed one example of the concept and three non-examples. Two formats were used for the concept test items. One format listed an example and three non-examples of the concept without giving the student the definition. The second format provided a single situation and one statement accurately defining the situation as an example of the concept and three distractors. The rule learning test items provided the student with a situation which was followed by four rules or propositions one of which accurately explained the events in the situation.

The contextual situations in the test items were all hypothetical in nature. No particular social science discipline was used to provide the factual base for the items. It was believed the hypothetical nature of the items would enable social studies to use the items regardless of the specific content being taught or for use as models for teacher-written items within a given discipline or content area. Thus, the test items could be used to assess a student's skill level in regard to the specific concept under study by using content-free contexts rather than situations specific to the social studies content area in which the concept was originally studied and learned. Furthermore, the test items could be used by the classroom teacher as a form of objective feedback for purposes of assessing the effects of his (her) own instruction.

Social studies teachers and supervisors from three Florida counties (Marion,

Monroe, and Orange) were assembled to assess the utility and communicability of the prototype materials. Following each of three workshops which included an introduction to the purposes and materials of the project and the reading of two of the prototypes, a 23-item questionnaire was administered to the participants. Six (6) supervisors, eleven (11) elementary teachers, eight (8) junior high teachers, and six (6) secondary teachers responded to the questionnaire by checking one of six categories on a Likert-type scale ranging from strongly agree to strongly disagree.

The data collected on the questionnaire revealed that the workshop participants perceived: (See Tables in Appendix for tabular data)

1. the materials as being very valuable in demonstrating one way of applying Gagne's levels of learning to social studies instruction (Table I);
2. the activities as being read and understood by students (Table II);
3. the pre-objectives as being clearly stated and worth of achievement (Tables III & IV);
4. the test items as being appropriate and adequate to measure student learning as defined by the pre-objective (Tables V & VI);
5. themselves as using the teaching activities and recommending their use to other teachers (Tables VII through X);
6. students as being able to read and respond to the test items (Table XI);
7. themselves as using the test items and recommending their use to other teachers (Tables VII through X); and
8. each of the eight concepts in the cluster as being appropriate for students to study and learn (Tables XII through XVI).

When asked to identify the three concepts they would most want to teach if they had to teach three, the participants selected the concepts of conflict (26 votes), role (19 votes), and norm and competition (11 votes each). (See Tables XII through XVI). The three least preferred were social solidarity (4 votes) and violence and polarization (5 votes each). The questionnaire responses

provide adequate data to infer that social studies teachers and supervisors do value concept-based and organized instruction and learning, and that they value materials and workshops which provide them with ways of learning and applying concept-based models such as Gagne's to their own school situations.

In conclusion, Gagne's model in The Conditions of Learning (1970) can be modified to form a logical model that might be applied to planning and teaching the social studies. This model can be used to develop logical teaching procedures and instructional activities consistent with complex levels of student learning. In addition, pre-objectives and test items to assess student learnings can be written. Furthermore, social studies teachers and supervisors perceive Gagne's model, as modified, to be a useful construct. They responded positively to the idea that conceptual-based instruction might be used to generate inquiry skills transferable to problem-solving tasks and to instructional activities and test items congruent with the model.

APPENDIX[1,2]

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[1] Data found in this Appendix were collected following three in-service workshops by J. Doyle Casteel and Wellesley T. Corbett, Jr. on behalf of the entire staff. The staff consisted of the following: J. Doyle Casteel, Project Director; Christine B. Button; Wellesley T. Corbett, Jr., Co-Director; John W. Gregory; Harry T. LaCava; and Robert J. Stahl.

[2] Special thanks is extended to Dr. Patricia Spears, Social Studies Consultant, Florida Department of Education, Tallahassee, Florida for her permission to use parts of these data for purposes of this paper. (Those wanting further data relevant to the project should contact Dr. Spears directly.)

TABLE I

FOCUS OF RESPONSE ITEMS: WORKSHOP

Response Item: "The workshop enabled me to see one way of applying Gagne's levels of learning to social studies instruction."

Reaction by County

	Marion	Orange	Monroe	Total
Strongly Agree	4	9	4	17
Agree	7	3	3	13
Slightly Agree	0	0	0	0
Slightly Disagree	0	0	0	0
Disagree	0	0	0	0
Strongly Disagree	0	0	0	0

Reaction According to Role

		Teacher, Grades:			
	Supervisors	4-6	7-8	9-12	Total
Strongly Agree	2	3	7	5	17
Agree	4	7	1	1	13
Slightly Agree	0	0	0	0	0
Slightly Disagree	0	0	0	0	0
Disagree	0	0	0	0	0
Strongly Disagree	0	0	0	0	0

TABLE II

FOCUS OF RESPONSE ITEMS: CLASSROOM ACTIVITIES

Response Item: "In my opinion, the teaching activities written for students of the school level I teach can be read and understood by students at that grade level." *

Reaction by County

	Marion	Orange	Monroe	Total
Strongly Agree	3	0	0	3
Agree	7	3	6	16
Slightly Agree	1	3	2	6
Slightly Disagree	0	1	0	1
Disagree	0	1	0	1
Strongly Disagree	0	0	0	0

Reaction According to Role

		Teachers, Grades:			
	Supervisors	4-6	7-8	9-12	Total
Strongly Agree	0	0	2	1	3
Agree	3	9	1	3	16
Slightly Agree	1	0	4	1	6
Slightly Disagree	0	0	0	1	1
Disagree	0	1	0	0	1
Strongly Disagree	0	0	0	0	0

* Two supervisors and one teacher did not respond to this item.

TABLE III

FOCUS ON RESPONSE ITEMS: PRE-OBJECTIVES

Response Item: "The pre-objectives in the prototype that I read were clearly stated." *

Reaction by County

	Marion	Orange	Monroe	Total
Strongly Agree	2	6	3	11
Agree	9	4	5	18
Slightly Agree	0	0	0	0
Slightly Disagree	0	0	0	0
Disagree	0	0	0	0
Strongly Disagree	0	0	0	0

Reaction According to Role

		Teachers, Grades:			
	Supervisors	4-6	7-8	9-12	Total
Strongly Agree	2	4	1	4	11
Agree	4	6	6	2	18
Slightly Agree	0	0	0	0	0
Slightly Disagree	0	0	0	0	0
Disagree	0	0	0	0	0
Strongly Disagree	0	0	0	0	0

* One teacher did not respond to this item.

TABLE IV

FOCUS OF RESPONSE ITEM: PRE-OBJECTIVES

Response Item: "If the concept in the prototype that I read were to be taught, the pre-objectives for each of Gagne's levels are worthy of achievement." *

Reaction by County

	Marion	Orange	Monroe	Total
Strongly Agree	2	5	4	11
Agree	9	5	3	17
Slightly Agree	0	1	0	1
Slightly Disagree	0	0	0	0
Disagree	0	0	0	0
Strongly Disagree	0	0	0	0

Reaction According to Role

		Teachers, Grades:			
	Supervisors	4-6	7-8	9-12	Total
Strongly Agree	2	4	2	3	11
Agree	4	6	4	3	17
Slightly Agree	0	0	1	0	1
Slightly Disagree	0	0	0	0	0
Disagree	0	0	0	0	0
Strongly Disagree	0	0	0	0	0

* One teacher did not respond to this item.

TABLE V

FOCUS OF RESPONSE ITEMS: TEST ITEMS

Response Item: "The test items would adequately measure the pre-objectives for which they were written." *

Reaction by County

	Marion	Orange	Monroe	Total
Strongly Agree	2	4	3	9
Agree	8	5	3	16
Slightly Agree	1	2	0	3
Slightly Disagree	0	1	0	1
Disagree	0	0	0	0
Strongly Disagree	0	0	0	0

Reaction According to Role

		Teachers, Grades:			
	Supervisors	4-6	7-8	9-12	Total
Strongly Agree	0	3	3	3	9
Agree	5	6	4	1	16
Slightly Agree	0	1	1	1	3
Slightly Disagree	0	0	0	1	1
Disagree	0	0	0	0	0
Strongly Disagree	0	0	0	0	0

* One supervisor did not respond to this item.

TABLE VI

FOCUS OF RESPONSE ITEMS: PRE-OBJECTIVES

Response Item: "If the concept in the prototype that I read were to be taught, students at my school level would be capable of achieving the desired outcome." *

Reaction by County

	Marion	Orange	Monroe	Total
Strongly Agree	0	0	1	1
Agree	9	10	4	23
Slightly Agree	2	1	1	4
Slightly Disagree	0	1	0	1
Disagree	0	0	0	0
Strongly Disagree	0	0	0	0

Reaction According to Role

		Teachers, Grades:			
	Supervisors	4-6	7-8	9-12	Total
Strongly Agree	0	1	0	0	1
Agree	3	9	6	3	23
Slightly Agree	2	0	1	1	4
Slightly Disagree	0	0	1	0	1
Disagree	0	0	0	0	0
Strongly Disagree	0	0	0	0	0

* One supervisor did not respond to this item.

TABLE VII

FOCUS OF RESPONSE ITEMS: CLASSROOM ACTIVITIES

Response Item: "If I were to teach the concepts of relative deprivation and role, I would probably use the teaching activities written for the grade level I teach."

Reaction by County

	Marion	Orange	Monroe	Total
Strongly Agree	3	6	4	13
Agree	6	4	2	12
Slightly Agree	1	1	1	3
Slightly Disagree	0	0	0	0
Disagree	1	0	0	1
Strongly Disagree	0	1	0	1

Reaction According to Role

		Teachers, Grades:			
	Supervisors	4-6	7-8	9-12	Total
Strongly Agree	2	5	1	5	13
Agree	4	3	4	1	12
Slightly Agree	0	1	2	0	3
Slightly Disagree	0	1	0	0	1
Disagree	0	0	1	0	1
Strongly Disagree	0	0	0	0	0

TABLE VIII

FOCUS OF RESPONSE ITEMS: CLASSROOM ACTIVITIES

Response Item: "If the concepts of relative deprivation and role were to be taught by those who teac at my school, I would recommend that they use teaching activities written for that level."

Reaction by County

	Marion	Orange	Monroe	Total
Strongly Agree	1	2	3	6
Agree	8	8	4	20
Slightly Agree	1	2	0	3
Slightly Disagree	0	0	0	0
Disagree	0	1	0	1
Strongly Disagree	0	0	0	0

Reaction According to Role

		Teachers, Grades:			
	Supervisors	4-6	7-8	9-12	Total
Strongly Agree	1	3	0	2	6
Agree	5	6	5	4	20
Slightly Agree	0	1	2	0	3
Slightly Disagree	0	0	0	0	0
Disagree	0	0	1	0	1
Strongly Disagree	0	0	0	0	0

TABLE IX

FOCUS OF RESPONSE ITEMS: PROTOTYPE UTILITY

Response Item: "I would predict that of the social studies teachers who receive a prototype, the percentage of teachers who would use it is:"

Reaction by County

	Marion	Orange	Monroe	Total
75-100%	1	0	1	2
50-75%	4	6	1	11
25-50%	5	3	4	12
0-25%	1	3	1	5

Reaction According to Role

	Supervisors	Teachers, Grades: 4-6	7-8	9-12	Total
75-100%	0	1	1	0	2
50-75%	5	2	2	2	11
25-50%	0	7	3	2	12
0-25%	1	0	2	2	5

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TABLE X

FOCUS OF RESPONSE ITEMS: WORKSHOP

Response Item: "If a workshop were made available for those who teach at my school, I would make the following recommendation concerning their participation."

Reaction by County

	Marion	Orange	Monroe	Total
By all means, go.	7	8	6	21
You will probably find it useful.	4	3	1	8
Go, but don't expect much.	0	0	0	0
Make up your own mind.	0	1	0	1
Stay home.	0	0	0	0

Reaction According to Role

		Teachers, Grades:			
	Supervisors	4-6	7-8	9-12	Total
By all means, go	6	5	6	4	21
You will probably find it useful.	0	5	1	2	8
Go, but don't expect much.	0	0	0	0	0
Make up your own mind.	0	0	1	0	1
Stay home.	0	0	0	0	0

TABLE XI

FOCUS OF RESPONSE ITEMS:

CONCEPTS SELECTED FOR PROTOTYPE DEVELOPMENT

Response Item: "Which of the concepts defined in the appendix of the prototype do you believe are appropriate for students at the grade level you teach?

Number of Positive Responses for Each Concept by County

	Marion	Orange	Monroe	Total
Conflict	11	12	7	30
Role	11	11	7	29
Violence	10	10	7	27
Social Solidarity	8	9	4	21
Norm	10	8	7	25
Polarization	7	9	4	20
Competition	10	12	7	29
Relative Deprivation	8	10	3	21

TABLE XII

FOCUS OF RESPONSE ITEMS:

CONCEPTS SELECTED FOR PROTOTYPE DEVELOPMENT

Response Item: "Which of the concepts defined in the appendix of the prototype do you believe are appropriate for students at the grade level you teach?"

Number of Positive Responses for Each Concept According to Role

	Supervisors	Teachers, Grades: 4-6	7-8	9-12	Total
Conflict	6	10	8	6	30
Role	5	10	7	6	29
Violence	6	8	7	6	27
Social Solidarity	3	6	6	6	21
Norm	6	7	6	6	25
Polarization	3	5	6	6	20
Competition	6	9	8	6	29
Relative Deprivation	3	6	6	6	21

TABLE XIII

FOCUS OF RESPONSE ITEMS:

CONCEPTS SELECTED FOR PROTOTYPE DEVELOPMENT

Response Item: "If you had to teach three of the above concepts, which three would you choose?"

Number of Times Each Concept was in Preferred Class By County

	Marion	Orange	Monroe	Total
Conflict	11	9	6	26
Role	6	8	5	19
Violence	2	1	2	5
Social Solidarity	0	4	0	4
Norm	4	1	6	11
Polarization	2	3	0	5
Competition	5	5	1	11
Relative Deprivation	3	5	1	9

TABLE XIV

FOCUS OF RESPONSE ITEMS:

CONCEPTS SELECTED FOR PROTOTYPE DEVELOPMENT

Response Item: "If you had to teach three of the above concepts, which three would you choose?"

Number of Times Each Concept was in Preferred Class According to Role

	Supervisors	Teachers, Grades: 4-6	7-8	9-12	Total
Conflict	6	8	7	5	26
Role	5	10	3	2	20
Violence	1	2	2	1	6
Social Solidarity	1	0	1	2	4
Norm	4	4	2	1	11
Polarization	1	0	3	1	5
Competition	2	4	3	2	11
Relative Deprivation	0	2	3	4	9

TABLE XV

FOCUS OF RESPONSE ITEMS:

CONCEPTS SELECTED FOR PROTOTYPE DEVELOPMENT

Response Item: "If you could not teach three of the above concepts, which three would you choose not to teach?" *

Number of Times Each Concept was Rejected By County

	Marion	Orange	Monroe	Total
Conflict	0	1	0	1
Role	1	3	0	4
Violence	3	2	1	6
Social Solidarity	7	4	5	16
Norm	5	7	1	13
Polarization	5	7	7	19
Competition	3	2	2	7
Relative Deprivation	4	4	3	11

* One elementary teacher rejected only one concept. One high school teacher did not respond to this item. One supervisor rejected only one concept, one did not respond, and still another commented, "None. I could modify all to my grade level."

TABLE XVI

FOCUS OF RESPONSE ITEMS:

CONCEPTS SELECTED FOR PROTOTYPE DEVELOPMENT

Response Item: "If you could not teach three of the above concepts, which three would you choose not to teach?" *

Number of Times Each Concept was Rejected According to Role

	Supervisor	Teachers, Grades: 4-6	7-8	9-12	Total
Conflict	0	0	0	1	1
Role	0	0	2	2	4
Violence	1	2	2	1	6
Social Solidarity	2	6	6	2	16
Norm	0	4	5	4	13
Polarization	3	9	4	3	19
Competition	1	2	2	2	7
Relative Deprivation	3	5	3	0	11

* One elementary teacher rejected only one concept. One high school teacher did not respond to this item. One supervisor rejected only one concept, one did not respond, and still another commented, "None. I could modify all to my grade level."

TABLE XVII

FOCUS OF RESPONSE ITEMS: TEST ITEMS

Response Item: "Students at my school would not be able to read the test items written for them." *

Reaction by County

	Marion	Orange	Monroe	Total
Strongly Agree	0	0	0	0
Agree	0	2	0	2
Slightly Agree	2	2	0	4
Slightly Disagree	2	1	0	3
Disagree	7	6	6	19
Strongly Disagree	0	0	0	0

Reaction According to Role

		Teachers, Grades:			
	Supervisors	4-6	7-8	9-12	Total
Strongly Agree	0	0	0	0	0
Agree	1	0	1	0	2
Slightly Agree	1	1	1	1	4
Slightly Disagree	1	1	0	1	3
Disagree	1	8	6	4	19
Strongly Disagree	0	0	0	0	0

* Two supervisors did not respond to this item.

TABLE XVIII

FOCUS OF RESPONSE ITEMS: TEST ITEMS

Response Item: "If the concept in the prototype that I read were to be taught, I would probably use the test items to diagnose student learning in my class."

Reaction by County

	Marion	Orange	Monroe	Total
Strongly Agree	1	3	3	7
Agree	8	6	4	18
Slightly Agree	1	2	0	3
Slightly Disagree	0	0	0	0
Disagree	1	1	0	2
Strongly Disagree	0	0	0	0

Reaction According to Role

		Teachers, Grades:			
	Supervisors	4-6	7-8	9-12	Total
Strongly Agree	1	3	1	2	7
Agree	3	6	6	3	18
Slightly Agree	1	0	1	1	3
Slightly Disagree	0	0	0	0	0
Disagree	1	1	0	0	2
Strongly Disagree	0	0	0	0	0

TABLE XIX

FOCUS OF RESPONSE ITEMS: TEST ITEMS

Response Item: "If the concept in the prototype that I read were to be taught by those who teach at my school, I would recommend that they use the test items to diagnose student learning in their classes."

Reaction by County

	Marion	Orange	Monroe	Total
Strongly Agree	3	4	2	9
Agree	6	4	5	15
Slightly Agree	1	3	0	4
Slightly Disagree	0	0	0	0
Disagree	1	1	0	2
Strongly Disagree	0	0	0	0

Reaction According to Role

	Supervisors	4-6	7-8	9-12	Total
Strongly Agree	2	4	1	2	9
Agree	2	5	6	2	15
Slightly Agree	1	0	1	2	4
Slightly Disagree	0	0	0	0	0
Disagree	1	1	0	0	2
Strongly Disagree	0	0	0	0	0

TABLE XX

FOCUS OF RESPONSE ITEMS:

CONCEPTS SELECTED FOR PROTOTYPE DEVELOPMENT

Response Item: "Which of the concepts defined in the appendix of the prototype do you believe are appropriate for students at the grade level you teach?"

Number of Positive Responses for Each Concept by County

	Marion	Orange	Monroe	Total
Conflict	11	12	7	30
Role	11	11	7	29
Violence	10	10	7	27
Social Solidarity	8	9	4	21
Norm	10	8	7	25
Polarization	7	9	4	21
Competition	10	12	7	29
Relative Deprivation	8	10	3	21

TABLE XXI

FOCUS OF RESPONSE ITEMS: PROTOTYPE UTILITY

Response Item: "If video tapes were available of lessons in which each level of learning was successfully taught, how helpful would such a model be for teachers in order for them to implement the materials presented in the workshop?"

Reaction by County

	Marion	Orange	Monroe	Total
Extremely Necessary	1	4	3	8
Very Helpful	10	6	4	20
Helpful	0	2	0	2
Slightly Helpful	0	0	0	0
No Help	0	0	0	0

Reaction According to Role

	Supervisors	Teachers, Grades: 4-6	7-8	9-12	Total
Extremely Necessary	1	4	1	2	8
Very Helpful	5	5	7	3	20
Helpful	0	1	0	1	2
Slightly Helpful	0	0	0	0	0
No Help	0	0	0	0	0